HD1695 S383 S38 1995

Santa Clara Valley Water District

Water Rate Structure Study

FINAL REPORT

Dated: July 24, 1995

Prepared by:

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Board of Directors
Santa Clara Valley Water District
5750 Almaden Expressway
San José, CA 95118

Dear Directors:

Public Financial Management, Inc., as financial advisor to the Santa Clara Valley Water District (the "District"), is pleased to submit this final report of the Water Rate Structure Study for your review.

Any questions on the content of this study may be directed to my attention at (415) 982-5544 ext. 233.

Very truly yours,

John H. Bonow, Jr.
Senior Managing Consultant
Public Financial Management, Inc.

Santa Clara Valley Water District
Water Rate Structure Study

FINAL REPORT
Dated: July 24, 1995

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Introduction/Executive Summary

As a component of its comprehensive financial planning and budget process review, the Santa Clara Valley Water District (the "District") has requested that Public Financial Management, Inc. ("PFM") prepare an independent review of the District's current water rate structure, customer classifications, relevant policies affecting the types of rates charged by the District, and the level of importance of each rate component in maintaining the amount and quality of water delivered by the District. These water rate structure and customer class components have been identified and compared to the rate structure and customer classes of similar water agencies in the State of California.

The goals of this study are to facilitate the identification of the objectives of the District's pricing policy, both those which are currently recognized and any which may be identified by the Board of Directors throughout this process, and to assist in the determination of the ability of the District to accomplish these objectives within its existing water rate structure. Therefore, interaction with and feedback from the Board is critical to the effectiveness of this study -- the conclusions as to the appropriateness and sufficiency of the existing rate structure and the recommendations for future actions both depend, in part, on discussions with the Board during its workshops with staff.

This study is not a review, analysis, or critique of the *level* of the District's various water rates and charges. Nor is it a review of the current cost allocation practices of the District. Such determinations are the sole domain of the District's Board of Directors and District staff.

Following an overview of the various types of rates and primary sources of revenue of the District's water utility, we have identified the fundamental concepts contained in the guiding water rate policy of the District -- the Taxing and Pricing Policy of 1971. This formally adopted document contains certain objectives and the pricing structure with which the District is to achieve the objectives. Other objectives also exist within the District; many of these are evident in the current practices and rate structures of the District, which has changed in many different ways since 1971. Potential future objectives, including, for example, various levels of support for water conservation and reclamation efforts are then identified to help assess the sufficiency of the water rate structure in meeting additional objectives.

Various issues currently face the District. Once the District determines that these issues do, in fact, exist, it may determine that they are linked to the current water utility rate structure. This report explores the possibilities that the issues may exist because either certain objectives are not being met or none of the current objectives address a particular issue. Examples of possible future issues are included to assist the District in its review of scope and adequacy of its pricing objectives.

After a thorough review of the water rate structure and the ability of the District to accomplish its objectives, including new objectives identified through discussions with the Board of

Directors, the results of PFM's comparative study of other water agencies in the State is presented in the form of an overview of alternative rate structures potentially available to the District. If the Board determines that certain objectives can not be achieved with the existing rate structure, it should prove helpful to have a set of potential rate structure options from which the Board could choose to augment its existing water rate structure.

The conclusions and recommendations of this study are for the benefit of the Board as it considers potential future adjustments to the District's water rate structure. As the Board identifies the District's pricing objectives and the need, if any, for an augmentation of its current water rate structure, it may wish to consider the recommendations of this report to assist the District in accomplishing its objectives.

It has been our distinct pleasure to have worked with the District managers and staff on this project. We look forward to being on continued assistance to the District on this subject.

Review of District's Current Rate Structure and Customer Classes

In order to gain the proper perspective on the appropriateness of the District's rate structure in meeting the operating, financial, and other policy goals established by the Board of Directors, it is important to thoroughly understand the current water rate structure of the District and how the various customer classes within the District are affected by potential changes to the structure.

Existing Rate Structure

As we have outlined in the next section, the District's rate structure is intended to meet objectives linked to the actual use of water in addition to the general availability of water throughout the County.

A basic user charge, a type of excise tax, is applied to water extracted from the groundwater basins in both the North County and South County as well as water delivered by the District through its surface distribution facilities, whether in a potable or non-potable condition. The groundwater charge is authorized under Section 26 of Chapter 1405 of the Statutes of 1951: Santa Clara Valley Water District Act, as amended. The basic user charge is the same for all sources of water.

A treated water surcharge is added to the basic user charge on all water delivered from the District's water treatment facilities. The surcharge is set by the Board at a level which allows the District to manage its available water supply -- the higher the surcharge, the more likely customers are to pump from the groundwater basin; and, conversely, the lower the surcharge relative to the expenses associated with pumping from the groundwater basin, the more likely customers are to use treated water deliveries from the District's surface water conveyance system.

Non-contract treated water surcharges are currently less than treated water surcharges, and they apply to customers who take their projected monthly delivery in any of the months of October through May, who would like to receive additional quantities of treated water during that same month, and exceed annual contract for treated water.

Surface water charges, including, for example, water master or operations charges, are added to the basic user charge for all raw water not pumped by customers from the groundwater basin. The surface water charge is included in the District's 1963 policy covering administration of surface water deliveries.

The charges listed above are all associated with the actual use of water or, at least, the contracted minimum use of water. Other types of revenue are currently available throughout the District associated with the general benefits of water availability and recreation, as examples, provided by the District for all its customers within the County.

The District also receives a portion of the **1% Countywide tax revenues** as allocated by the County Assessor. Taxes from Zones W-3, W-4, and W-6, which cover approximately all but the southern most portions of the County, as well as a Countywide ad valorem tax are part of the allocation. Prior to Prop. 13, the District received distinct taxes from these various zones. Those property taxes, with the exception of the specific taxes listed below, are now part of the County's 1% fair share allocation.

Ad valorem taxes are levied by the District in the northern half and southern quarter of the County (Zones W-1 and W-6, respectively) for the repayment of general obligation bond indebtedness. The entire County is subject to an additional tax levied to generate revenues which are applied to part of the contractual obligations of the District for the State Water Project.

Customer Classes

The District currently divides its service area into two water rate zones of benefit: North County and South County. These zones are roughly divided by Metcalf Road and represent the two major groundwater sub-basins within the County. Customers within each zone of benefit are classified as (1) agricultural or (2) municipal and industrial, both of which pay a basic user charge, although it is not currently the same within each zone (see discussion of pricing objectives in the next section). The treated water surcharge is also applied in addition to the basic user charge for municipal and industrial customers using treated water. The existing Treated Water Contracts state that the treated water will be priced at the basic user charge for municipal and industrial plus the treated water surcharge (ARTICLE C. PAYMENT PROVISIONS, Paragraph 1).

SANTA CLARA VALLEY WATER DISTRICT
Water Rate Structure Comparison
Summary of Water Charges

	Fiscal Year				
	1991	1992	1993	1994	1995
Zone W-2 (North County):					
Basic User Municipal and Industrial	175.00	262.00	262.00	240.00	240.00
Basic User Agricultural	43.75	43.75	43.75	43.75	43.75
Contract Treated Water Surcharge	70.00	70.00	70.00	70.00	70.00
Zone W-5 (South County):					
Basic User Municipal and Industrial	46.00	117.00	117.00	108.00	108.00
Basic User Agricultural	11.50	11.50	11.50	11.50	11.50

Taxing and Pricing Policy (1971)

The District currently sets rates within a rate structure outlined in the Taxing and Pricing Policy of 1971 (the "Pricing Policy"). This Pricing Policy was adopted by the District's Board of Directors on January 18, 1971, to manage the District's water supply. No record exists of formal amendments being made to the Pricing Policy since its adoption. A copy of the Pricing Policy is included as Appendix A.

Contained in the Pricing Policy are two fundamental concepts which direct the manner in which the District prices its water services. These include:

1) Water Pooling Concept: water is a commodity priced without regard to source or cost within zones; and
2) Customers pay for benefits received.

These concepts dictate how customers within each zone of benefit pay for the use of water, the availability of water, recreation opportunities at District facilities, and the like. For example, all customers in the North County zone of benefit pay the same basic user charge, whether they are the San José Water Company or the City of Cupertino.

Additional concepts contained in the Pricing Policy include the notion of flexibility and the acknowledgment that the District provides benefits beyond the actual use of water. The property taxes levied within the District for water utility purposes, with the exception of those dedicated to the repayment of general obligation indebtedness and the District's portion of costs associated with the State Water Project, are currently considered as payments for water availability and recreational benefits.

Water management practices, especially the District's influence over the use of the groundwater basin, were also recognized by the Pricing Policy. The treated water surcharge, for both contract and non-contract water, is an example of an element of the District's water rate structure specifically designed to influence the use of the groundwater resources. The rate structure objectives of the District are reviewed in the next section.

Rate Structure Objectives

Historical and Current Objectives:

As was mentioned in the introduction/executive summary section of this study, one of the main goals of the study is to identify the current pricing and operating objectives of the District and to determine whether or not the current water rate structure provides the framework necessary to accomplish those objectives. Following a review of the District's Taxing and Pricing Policy of 1971, its Mission Statement from 1985, the District Act, and the pricing practices of the District since 1971, several rate structure objectives were identified.

Pricing water without regard to source or cost by zone. This objective reflects the water pooling concept approach to pricing water use within the District, as outlined in the Pricing Policy. The District rate structure within each zone is consistent with this approach.

Recover costs based on benefits received. As the other fundamental concept contained in the Pricing Policy, the District strives to recover costs associated with the benefits of its current operations and its position as the wholesale water provider for the County.

Maintain required water quality standards. Identified in the District's Mission Statement, this objective requires that the District put the treatment facilities and technology in place to treat water to a point where it not only meets federal regulations, but satisfies the water quality requirements of the service area.

Maintain a high degree of water reliability. This second part of the Mission Statement reflects what the District views as one of its fundamental duties: to undertake the efforts necessary to ensure a quantity of water for each customer consistent with their service area needs.

Attempt to influence the relative use of groundwater and treated water. The District's water supplies consist of local water and imported water delivered through the State Water Project and the Central Valley Project, some of which is recharged into the groundwater basin. The District wishes to preserve the groundwater basin as an ongoing resource and source of supply. This is stated in the Pricing Policy. With no direct control over whether a customer chooses to pump water from the groundwater basin or take treated surface water, the District attempts to influence the decision by managing the price of the two sources of supply through its treated water surcharge.

Preserve the County's economic base. Mentioned in the District Act as justification for the 4:1 ratio in the Non-Agricultural and Agricultural basic user charges and as part of the 1991 rate changes, the District has historical set rate levels to preserve the agricultural sector of the economy. The $2.00 per acre foot additional charge on non-agricultural users which has been in place since 1991 is an example of the District's efforts in this area. (See "General Economic Benefit" in the 1971

Taxing and Pricing Policy, Page 1).

Possible Future Objectives:

Although the objectives listed above may be viewed by the Board as sufficient for the future direction of the District, discussions with staff and analyses of the changing water environment in California have identified potential objectives the Board may wish to accomplish in the future. These are outlined below:

Maintenance of revenues. The District currently does not have as part of its Pricing Policy a fixed minimum charge; however, the treated water contracts require payment for 90% of the maximum contracted treated water delivery. Some form of fixed charge may be an element of the rate structure which the District could consider implementing to achieve this potential objective.

Distinguishing between current and future customers. The District's practice of designing and constructing facilities which are sufficiently sized to accommodate the projected demands of the service area well into the future is consistent with most utility planning practices. The cost of these facilities, which are being built, in part, to serve future customers, is entirely the burden of the District's current customers, with the exception of debt service associated with the District's Water Revenue Bonds, Series 1994, which include maturities through June 1, 2004. The current rate structure may not be able to properly allow the District to price these capacity-related services and it may wish to consider some form of alternative structure for this purpose.

Conservation. If the District chooses to reward conservation practices within its service area, it may want to consider the use of a tiered rate structure, since the current rate structure and pricing concepts do not appear flexible enough to meet this objective. The seasonal nature of demand and supply may also be addressed through a similar rate structure.

Reclamation. Although the District does have a rate for reclaimed water in the Gilroy area, it may wish to consider a set of rates which will allow it to support reclamation and price it efficiently, if such actions become an objective of the Board.

Availability of Water from Hetch Hetchy System. Some customers within the District's service area currently have the use or potential use of water from the Hetch Hetchy system. The District may wish to evaluate the need to establish a rate structure for these customers to influence the amount of water they take from the District's system.

Feedback from the Board will be critical to the formation of any additional objectives, whether they are in place of or in addition to the example listed in this section.

Issues Facing the District

Having identified the existing rate structure, pricing policies, and pricing objectives of the District, it should prove helpful to identify some of the issues facing the District so that the Board may determine whether these issues, if they do exist, may be effectively addressed within the current rate structure or if some change in the rate structure or the pricing objectives is required. Although the following list should represent the major issues identified in the preparation of this study, the Board of Directors may recognize other issues which it would like to address as part of this rate structure review.

Two water rate zones
Differential rates for non-agriculture and agriculture
Maintenance of agricultural rate at 1991 levels
Treated water surcharge
Tiered rates
Continued imposition and use of property taxes

Two water rate zones. Fundamental to the District's rate structure and pricing practices is the division of the service area into two water rate zones based on the two main groundwater sub-basins within the County. The District has operated under the concept that the basic user charge for a particular customer within a certain zone of benefit will not differ from the charge for any other customer in the same class within the same zone. This is the water pooling concept identified in the Pricing Policy. Combination of the service areas into one zone would necessitate a change in the District's rate structure.

Differential rates for non-agriculture and agriculture. The District Act sets the minimum ratio of non-agricultural to agricultural rates at 4:1 (see Section 26.7, 3(D)). The District has chosen to set rates above this ratio in the past. Although the District Act does not provide information regarding the method of calculating or the purpose of this ratio, it apparently represents the estimated difference in the benefits received by the different customer classes. If the District Act were changed, it may require some change in the existing rate structure differences between non-agricultural to agricultural customers.

Maintenance of agricultural rate at 1991 levels. In 1991, the Board chose to keep agricultural rates at their 1991 levels, while increasing the non-agricultural rates. An open space charge, as it is often described, of $2.00 per acre foot was added to the non-agricultural rates and has remained a component of those rates. The Board may wish to review this issue in the context of its stated policy and pricing objectives.

Treated water surcharge. As mentioned earlier in this report, the treated water surcharge is the primary pricing mechanism available to the District in its management of its groundwater basin. In 1994, the District prepared an analysis addressing the manner in which this surcharge is determined

and whether one charge for all customers is sufficient to influence the relative uses of groundwater and treated water. If the Board determines that its groundwater management objectives are not currently being achieved, alternatives to the current form of the treated water surcharge or some type of rate structure may become necessary.

Tiered rates. Some of the accepted methods of encouraging conservation and pricing reclaimed water include the use of a tiered rate structure. Tiers are generally the same for each customer class and quality of water delivered. The current rate structure of the District does not include tiered rates, although the District could implement such rates 1) through the establishment of alternative zones of benefit, with rates uniform within each zone, 2) by connecting the tiered rate to groundwater production levels during periods of drought or water shortage, or 3) by amending the District Act.

Continued imposition and use of property taxes. Uncertainties about the sufficiency of property taxes to recover the costs of providing benefits beyond the actual use of water are evident in the District. Prior to the passage of Proposition 13, the District levied several taxes to recover the costs of providing such benefits. The valuation of the costs of providing these benefits (generally described as the economic benefits of water availability and recreation) was estimated by the District based on the cost of its water importation facilities and the capital costs and maintenance and operation costs of all District-owned reservoirs.

With the exception of the State Water Project tax and General Obligation bond payments, the District has had no separate *ad valorem* tax system in place since Proposition 13 was passed. With the exception of the property taxes dedicated to the repayment of the General Obligations bonds and State Water Project contractual costs, all property taxes received by the District are in the form of its portion of the 1% fair share allocation from the County of Santa Clara. Although the District may be able to estimate the costs of providing benefits beyond the actual use of water, the ability to impose property taxes to recover such costs is limited.

In addition, the State may reallocate all or a portion of this revenue source away from the District, in which case a substitute for or an addition to the existing property tax system may be required. Another potential issue is a reallocation of property taxes within the District to pay for those costs currently allocated to the water and flood control divisions, but which are not direct costs of such operations. Many of the costs currently allocated between the flood control and water utility divisions of the District, such as graffiti control and non-point source pollution control, could be reallocated and funded with property taxes under this scenario.

Alternative Rate Structures

If the Board of Directors determines that any of the current or future objectives of the District can not or will not be achieved within the current water rate structure, the Board may wish to implement alternative types of rates to help accomplish its objectives. An identification of these alternatives should prove helpful for the District if it identifies the need to change or expand the types of rates it uses. Therefore, a component of this study has been an extensive review of the rate structures of comparable agencies around the State to determine what types of rates are in place or will soon be in place within wholesale water agencies.

PFM contacted 94 water districts and agencies, most of them wholesalers, as part of the comparative water rate structure portion of this study. A distribution list for the Request for Information and the request itself are included as Appendix B. Both the willingness to respond to our Request for Information and the quality of the information received varied greatly. However, many of the large wholesale agencies in the State responded, adding a beneficial perspective to this effort. Several helpful, follow-up conversations took place with the financial planning departments of the responding agencies to enhance the usefulness of the information.

Due to the District's unique characteristic of receiving water from both the State Water Project ("SWP") and the San Felipe Division of the Central Valley Project ("CVP"), in addition to its local supplies, the scope of the solicitation for information reached CVP contractors, SWP contractors, and agencies with their own local supplies. The study also examined each agency's approach to accomplishing its water reclamation and conservation objectives and how each agency priced services to its non-agricultural and agricultural customers, to the extent such customer classes existed.

Many of the fundamental concerns surrounding the financial planning efforts of the District pertain to the question of *how* the District is to charge for the various services provided by the water utility. These concerns are distinct from the question of *how much* to charge. This portion of the study focuses on the questions of what rates structures are available to the District.

The table on the following page provides an overview of the types of water rates currently being levied by wholesale or otherwise comparable water agencies in the State. Many of the major water wholesalers in the State, such as The Metropolitan Water District of Southern California ("Met Water"), are also reviewing the structure of their water rates. Where possible, the new or projected water rate structures are summarized.

SANTA CLARA VALLEY WATER DISTRICT
Alternative Rate Structures

AGENCY	Municipal & Industrial		Agricultural		(a)	Seasonal Charges		Reclaimed Water		Emergency	
	Non-Potable	Potable	Non-Potable	Potable	Ground-water	Non-Potable	Potable	Non-Potable	Potable	Non-Potable	Potable
Santa Clara Valley Water District (b)	X	X	X		X			X			
Contra Costa Water District	X	X									
Alameda County Water District*	X	X	X								
Calaveras County Water District		X	X							X	
Foothill Municipal Water District*	X				X	X		X		X	
Kern County Water Agency	X	X	X	X	X						
Kings County Water District			X		X						
The Metropolitan Water District of Southern California	X	X	X	X		X	X	X	X	X	X
Orange County Water District	X	X	X	X	X	X	X	X	X	X	X
Redwood Valley County Water District		X	X								
San Diego County Water Authority	X	X	X	X		X	X	X	X	X	X
Sonoma County Water Agency	X		X		X					X	

(a) Groundwater pumping or replenishment charges
(b) SCVWD does not currently make distinctions between noninterruptible and interruptible service.
* Retail

Comparison of Water Rate Structures

The District's unique supply situation, which includes a significant local groundwater supply component, differentiates the District from some of the more notable wholesale agencies, including Met Water and the San Diego County Water Authority, in that the groundwater charges of the District are a significant component of its rate structure. Furthermore, the District has one of the higher agricultural demand components of any wholesale water agency also serving such a large urban population.

In addition to the different types of rates being implemented by the various agencies responding to the study, the use of each rate component varied greatly among the survey group. Only the District and the Orange County Water District use the groundwater charge in conjunction with the treated water surcharge for the express purpose of influencing the degree of groundwater pumping within the service area.

Capacity-related rate charges such as readiness-to-serve charges and new demand charges are currently being implemented by large water wholesalers in the State, as are seasonal charges. PFM can provide the District with detail on the purpose, level, and implementation timeframe for such charges, in the event the District chooses to explore such charges as a means of accomplishing new objectives.

Conclusions

1. The District's current Pricing and Taxing Policy requires updating.

2. The District's objective of allocating costs to beneficiaries is difficult to achieve when the beneficiaries of a current project are future customers.

3. The current rate structure primarily addresses costs which vary with water consumption, although fixed costs are a substantial component of the District's expenses.

4. Proposition 13 has substantially affected the ability of the District to recover costs associated with District-wide benefits through *ad valorem* property taxes.

5. The District's Act requires a minimum ratio of 4:1 for non-agricultural rates to agricultural rates - the determination for this ratio and a method for recalculating it is not documented in the Act.

6. The District's current rate structure does not address the availability and use of Hetch Hetchy water within current service area

7. To achieve water conservation goals, water cost needs to vary with consumption.

Recommendations

On an annual basis:

1. Review and revise, as necessary, the rate structure objectives

2. Review policies and rate structures necessary to accomplish objectives

Outcomes of Board Workshop:

Although the District's Board of Directors has decided to not change the District's rate structure for the current water year, the Board identified several activities which it viewed as worthy of further consideration. Pursuant to these activities, as outlined below, PFM will 1) provide alternatives for implementing new or unfulfilled objectives and 2) prepare a final pricing policy with pricing objectives, including any rate structure changes.

1. Explore the appropriateness and applicability of growth related charges

2. Consider the incorporation of a fixed rate component as part of the overall rate structure (include analysis of the potential revenue situation during drought conditions - compare to the effects of recent drought on revenues and District's response, i.e., use of reserves)

3. Review pricing policies concerning:

    a. Promoting water conservation and reducing peaking
    b. Enhancing the viability of reclaimed water activities
    c. Developing future water storage
    d. Generation of revenues to maintain County-wide recreation and open-space
    e. Water availability

4. Review ability of District to accomplish objectives in 3 (a-e) within existing rate structure

5. Review need for a rate structure component to address availability and use of Hetch Hetchy water within current service area

Appendix A - Taxing and Pricing Policy of 1971

RESOLUTION NO. 71-19

ADOPTING "WATER TAXING AND PRICING POLICY"

WHEREAS, upon review and study of the water program of Santa Clara County Flood Control and Water District with special regard to its attendant benefits and the equitable allocation of the costs of providing the same, the SANTA CLARA COUNTY WATER COMMISSION has made recommendations to this Board of Directors; now, therefore,

BE IT RESOLVED, by the Board of Directors of the Santa Clara County Flood Control and Water District that the policy of the District in the area of taxation and water pricing shall be and is hereby adopted as set forth in Exhibit A attached hereto.

PASSED AND ADOPTED by the Board of Directors of Santa Clara County Flood Control and Water District this 13th day of April, 1971, by the following vote:

AYES: Directors J. CHIRI, V. F. CORSIGLIA, M. E. DULLEA, J. J. LENIHAN, R. T. SAPP, R. J. STURLA, F. A. WILCOX

NOES: Directors NONE

ABSENT: Directors NONE

SANTA CLARA COUNTY FLOOD CONTROL
AND WATER DISTRICT

By: R. Jack Sturla
Chairman of the Board of Directors

ATTEST: VIOLET V. ENANDER

Violet V. Enander
Clerk of said Board of Directors

SANTA CLARA COUNTY FLOOD CONTROL AND WATER DISTRICT
TAXING AND PRICING POLICY

Objectives of a Water Pricing Policy

The broad objective of a proper pricing policy should be to charge the recipients of the various benefits for the benefits received.

There are several types of benefits which result from a comprehensive water program. The primary benefit is that of providing a water supply to the District so that we can optimize the methods of using the water resources available to the area. All of the facilities constructed or to be constructed should and do provide this benefit, whether the facilities are source of supply facilities such as reservoirs and import facilities; transmission facilities such as aqueducts, canals, pipelines, and percolation ponds; or the water treatment plants. Some of these facilities provide special and distinct benefits. The reservoirs provide flood control benefits in the watersheds in which they are located and provide recreational benefits such as fishing, boating, picnicking, camping, hiking, swimming, etc., to the entire County. Some of the percolation ponds also support similar recreational activities and provide a county-wide recreational benefit.

In addition to the water supply, flood control, and recreational benefits resulting from the water program, there is also a general economic benefit to either the County as a whole or the area of service of the facilities to be constructed. These benefits result from the mere construction of the facilities such as reservoirs, import lines, transmission mains and treatment plants which provide an availability for water even though such facilities are not put to use. In the construction of such facilities, excess capacity should be provided to insure the capability for a growing economy.

A final and important benefit resulting from the water program, closely allied to the general economic benefit, is the ability to retard and eliminate subsidence.

It is possible to ascertain the costs associated with some of these benefits, for example--the share of costs allocated to flood control resulting from construction and operation of the reservoirs and to recreation associated with the reservoirs, and the percolation ponds can be ascertained through application of

EXHIBIT A

recognized cost allocation formulas. Some aspects of cost related to the elimination of subsidence such as the cost of water used to replace the accumulated overdraft can be easily measured. It becomes more difficult, however, to allocate the remaining costs between water supply benefits and the economic benefits.

Whenever costs associated with specific benefits are clearly and easily measurable they should be charged to the beneficiaries. Those beneficiaries who receive a supply of water for consumptive use (use of water for private recreational purposes is considered a consumptive use) should pay for such benefits on the basis of a properly allocated water user charge. Those who receive benefits from the other elements of the water program should be charged on the basis of taxes in the areas of benefit. Where there is a question as to the identity of the beneficiary or the method of measuring the benefit, the allocation of costs should remain flexible and be determined in accordance with accepted practices and sound judgments.

As a means of accomplishing the aforementioned objectives, the pricing policy should embody the following concepts:

1. A Water Pooling Concept - The water pooling concept is, to a limited extent, embodied in the present pricing policy. Under this concept water is considered to be mixed irrespective of its source and cost. The water is considered as a single commodity whether it be (a) water provided without benefit of local conservation facilities or importation, (b) water made available through our local conservation reservoirs, (c) water which is imported from the South Bay Aqueduct at present and will be imported through the Pacheco Aqueduct upon completion of the San Felipe Project, or (d) water from other sources such as reclaimed water, desalinized water, or weather modification.

   The concept should be retained, but the configuration of the groundwater basin which constitutes the common pool should be re-examined and more accurately described. From a geological and hydrological standpoint, the groundwater basin receiving runoff from streams in Northwest, North Central, Central and East Zones of the District is a common pooling basin. Local conservation and distribution facilities and the importation of water have in the past, and will in the future, aid in equalizing the benefits within this geographic area.

2. A Water Facilities Cost Pooling Concept - This concept is considered a basic requirement of optimum water resources management, since all facilities contribute to the common benefit.

   To illustrate this point, there is a possibility that the Central Pipeline now transmitting raw water will in the future be used for the transmission of treated water; that treated water could be served to the Evergreen area by construction of a southern loop rather than the Penitencia Treatment Plant and the Evergreen Pipeline; and that the District could build percolation ponds and raw water pipelines instead of treatment plants and treated water pipelines for service to various areas and to relieve the overdraft on the underground. It seems obvious that any transmission facility, whether it be canal or pipeline, or whether it be carrying raw water or treated water, is constructed to deliver water to the point of use and thereby augment facilities provided by nature for the transmission of water. The same is true of treatment plants which are a substitute for the filtering process provided by the underground basin. Any aqueduct or treatment plant is constructed to augment or supplement the natural transmission and filtration capability of our underground basin. The location of treatment plants along those pipelines is, or should be, determined by the least expensive overall cost in providing adequate water service. The "pooling of costs of facilities" concept would eliminate from present practices the reference to named facilities and would charge instead on the basis of common benefit.

3. A Water Resources Management Concept - This concept would allow the District to manage its total water supplies whether underground or surface delivered, to obtain the maximum utilization of the water resources of the area to the advantage of the present and future populations of the County. From an external standpoint, it is desirable that our taxes and charges be competitive with those of other agencies performing similar services. This end result is desirable to attract various types of commercial and industrial activity to provide a diversified employment force and a well-balanced economy. This concept would, through taxing and pricing, provide management tools to establish competitive rates and to optimize the benefits received by the use of the water resources of the area.

The Implementation of the Proposed Water Taxing and Pricing Policy

To meet the objectives of a proper taxing and pricing policy, the following actions should be taken:

1. Establish zones encompassing the common groundwater basins benefited by conservation, import, and recharge of water. Such area would include the basins of all watersheds feeding into a common underground basin by natural means or as aided by construction of importation, distribution and recharge facilities.

   This zone would be a water charge zone in which charges should be levied on all groundwater extractions. The measure of this charge is determined in recommendations 6 and 7.

2. Establish a taxing zone or zones to reflect the areas presently capable of being served or which will, in the near future, be served by District-constructed water facilities. As new water facilities are added to serve new areas, the boundaries of the zones would, of necessity, be amended accordingly.

   NOTE: If the present practice of levying ad valorem taxes instead of groundwater charges in the area south of Metcalf Road is to be continued, a taxing zone should be established to encompass the area south of Metcalf Road and such area should not be subject to a groundwater charge.

3. Levy a county-wide importation tax to pay for the economic benefits to the County as a whole for water availability. The measure of this tax would be the same measure as being applied under the present policy for the capital cost of the water importation facilities except that it would not be limited. Water importation facilities related to this tax would be the South Bay Aqueduct (State of California), the San Felipe Project (Bureau of Reclamation), and the Hetch Hetchy System (San Francisco).

The philosophy of this tax is that these facilities assure to the County an adequate supply of water simply by their existence and availability.

Capital costs of the South Bay Aqueduct are determinable from bills of the Department of Water Resources and present no problem in projecting costs.

The Bureau of Reclamation, in its San Felipe contract negotiations, is proposing a per-acre-foot cost for conveyance (equivalent to capital, maintenance and operating cost of the South Bay Aqueduct), for storage (equivalent to the State's Delta Water Charge) and for power as it relates to both conveyance and storage. The Bureau of Reclamation will be able to designate the portion of the conveyance cost attributable to capital expenditures. The Bureau's method of charging will provide an easily determinable method for accurately projecting the capital cost component of the Federal importation facilities.

The method of measuring the capital cost component of the Hetch Hetchy System is much more difficult. The Hetch Hetchy Aqueduct may not have the same degree of permanent availability as is found in the South Bay or Pacheco Aqueducts. Hetch Hetchy contracts terminate in the early 1980's while the State and Federal contracts do not terminate until after year 2020 and contain provisions for renewal. Furthermore, there is no firm capacity reserved for Santa Clara County in the Hetch Hetchy System, and a recent report to the San Francisco Water Department recommends deleting Santa Clara County, except for the City of Palo Alto, from the service area of the Hetch Hetchy System. The San Francisco system imports water from three sources - Calaveras Reservoir, the Sunol Filter Gallery and Yosemite Park. Some of the system has been completely paid for while other parts are being paid off on a twenty-year amortization schedule. Expenditures have been made in the Hetch Hetchy Aqueduct System to enhance power generation and for other uses which should be but are not easily separated from the water supply costs. In view of the above, an accurate and equitable method of computing the capital cost component seems uncertain - as does the availability of the aqueduct to Santa Clara County. Even though such uncertainties exist, the present existence and use of the Hetch Hetchy Aqueduct

does provide an economic benefit to the District and should be paid for by a county-wide tax which would equate to the tax rebate to those public agencies importing water through the Hetch Hetchy System. Since the capital costs of the Hetch Hetchy System, and the economic benefits resulting therefrom, are not easily determined and are subject to question, it is recommended that the tax rebate be determined in accordance with the presently accepted practice embodied in the pricing policy adopted March 4, 1963 and the amount of such rebate be added to the annual capital cost payments of the South Bay and Pacheco Aqueducts to determine the total county-wide tax levy for construction of import facilities.

4. Levy a county-wide tax to pay for the recreation benefits which are available from use by all County residents of the District's reservoirs and percolation ponds. This tax would be determined by appropriate allocations of the capital costs and maintenance and operations costs of all District-owned reservoirs and percolation ponds opened for recreation activities.

5. Levy a tax within the flood control zones for the flood control benefits resulting from the construction, operation and maintenance of the District's reservoirs. This tax would also be determined by following the same cost allocation procedure used for allocating costs to recreation.

6. Levy a basic water user charge to recover costs incurred for the benefit of current water users, i.e., costs related to consumptive use of water which costs include:

    a) Water purchased from the State of California or the Bureau of Reclamation. This cost would be measured by the State's Delta Water Charge and the Bureau's prospective Storage Charge.

    b) Maintenance and operating costs of import facilities. This cost would be measured by cost data supplied by the State and Federal Governments.

c) Maintenance and operating costs of all District-owned and constructed facilities - determined by actual expenditures for such purposes from the District's accounting records.

This user charge would be applied to all groundwater extractions in the water charge zone and to all surface diversions of water conserved or imported by the District. The costs recovered by the user charge are made necessary because of the actual use of facilities constructed whether they be import or local conservation and distribution. Therefore, they should be paid for by the current water users.

7. The remaining expenditures that would be made in providing a supply of water result from construction of local facilities and consist of the capital cost of such items as local conservation reservoirs, aqueducts, regulating reservoirs, percolation ponds, and treatment plants. In such facilities some are deemed to contain excess capacity, while others are not. For example, the conservation reservoirs, our existing raw water aqueducts, and the percolation ponds are constructed to provide capacity for large flows required in years of heavy local rainfall. The capacity constructed into such facilities to handle these peak loads is necessary for the conservation and use of local water on a current basis. The cost of these facilities should, therefore, be charged to water users.

On the other hand, additional capacity built into treated water aqueducts, regulating reservoirs, and treatment plants is provided to assure availability of a water supply to undeveloped land in future years. Such excess capacity provides an economic benefit to such lands. Therefore, the excess capacity provided in facilities which produce or transmit a supply of treated water could, as an economic benefit, be properly charged to taxes within the service area for which excess capacity will be provided. The resulting recommendation is that the cost of such facilities be allocated between excess capacity and current use--with the costs allocated to current use being charged to the water users and the costs of excess capacity being charged to taxes within the service area. The combination of user charges and tax revenues would

provide flexibility for the construction of needed facilities which presently cannot be supported with reasonable user charges during the early years of use. Tax revenues for such purposes would be limited to that required to fund the repayment of the capital costs of any excess capacity provided in such facilities.

8. Levy a tax in the service area zone to pay the actual costs of water purchased to replenish our depleted underground supply - to retard and eliminate subsidence as well as provide an emergency supply in the underground reservoir for use during any unforeseen emergency. As stated earlier, the elimination of subsidence is of economic benefit to the area of service; and, as an economic benefit, taxes should be levied to pay for this cost. The same reasoning applies to the providing of an emergency supply of water. This cost would be measured by the State's Delta Water Charge and the Bureau's prospective Storage Charge, together with the related power costs.

9. Levy a treated water surcharge, which, when added to the basic water-user charge, would constitute the price of potable water delivered by the District from any of its facilities supplying potable water. This recommendation adopts the water resources management concept, and provides the necessary economic tool to obtain maximum utilization of our available water resources. The charge should be established at an amount that would prevent an overuse or under use of the groundwater basin. For any given rate period the charge could be lowered to discourage the use of groundwater supplies--or raised to encourage such use--while at the same time maintaining an approximate equality of total prices to the wholesale customers for groundwater and treated water.

Since the treated water surcharge is primarily an economic balancing tool, such revenue should be used to provide a proper balance between service area taxes and user charges, as well as establishing the proper relationship between treated water and groundwater charges.

Since the revenues derived from the treated water surcharge would be generated within the service area these sums could be used to lower the basic water charge or to reduce the service area taxes. Such revenues could

also be used to create or maintain a reserve to level the tax rates within a given rate period and to provide for unforeseen contingencies, or for minor construction.

10. Set water charges based on the above recommendations at a stable rate for 5-year rate periods.

Appendix B - Comparable Agency Survey

[Date]

[Name]
[Title]
[Address]
[Address]

[Greeting]

Public Financial Management, Inc., as financial advisor to the Santa Clara Valley Water District (the "District"), requests that you take a few moments to compile the data identified in the attached Request for Information. The District is in the process of reviewing its current water rate structure, the manner in which it determines customer classes, and the customers who belong to each class. As such, it would like to review the policy objectives and rate structures of similar agencies around the State of California. The brief Request for Information includes water customer classes, rate structures and rate levels (with few exceptions, most of this information should be contained in materials that your agency prepares on a regular basis).

Portions of the summaries of this study will be made available to each agency responding to this Request for Information as a statement of our thanks in your assistance with this effort. On behalf of the District, thank you very much for taking the time to collect and forward this information.

Please mail your response to me at the following address (or you may contact me at (415) 982-5544 ext. 233 for my Federal Express account number):

Sincerely,

John H. Bonow, Jr.
Senior Managing Consultant
Public Financial Management, Inc.

January 9, 1995

FACSIMILE MEMORANDUM

TO:	Jennie Micko, *SCVWD*	Fax: (408) 266 - 0271
FROM:	John Bonow, *PFM*	
CC:	Rudy Muravez, *SCVWD*	Fax: (408) 265 - 8150
RE:	**List of Agencies Contacted as Part of Rate Study**	**PAGES: 4**

As you requested, this memo contains the list of agencies contacted as part of the water rate structure and customer class study. Please note that several of the agencies on the list are currently clients of PFM - we did not send them a Request for Information, since we are able to collect the information in a more direct fashion.

Please let me know if you have any comments.

Request for Information on behalf of the Santa Clara Valley Water District

Public Financial Management, Inc.
Attn: John H. Bonow
Phone: (415) 982-5544
Fax: (415) 982-4513

Alameda County Water District
Amador County Water Agency
Angiola Water District
Antelope Valley - East Kern Water Agency
Apple Valley Foothill County Water District
Apple Valley Heights County Water District
Arvin-Edison Water Storage District
Beaumont-Cherry Valley Water District
Bella Vista Water District
Berrenda Mesa Water District
Bighorn-Desert View Water Agency
Buena Vista Water Storage District
Calaveras County Water District
Calpella County Water District
Capistrano Beach County Water District
Carpinteria County Water District
Castroville County Water District
Central Coast Water Authority
Chualar County Water District
Coastside County Water District
Colusa County Water District
Contra Costa Water District
Cucamonga County Water District
Desert Water Agency
East Bay Municipal Utility District
East Blythe County Water District
East Orange County Water District
East Valley Water District
Eastern Municipal Water District
El Dorado County Water Agency
Foothill Municipal Water District
Free Water County Water District
Friant Water Users Authority
Imperial Irrigation District
Indian Wells Valley Water District
Irvine Ranch Water District
James Irrigation District
Kanawha Water District
Kern County Water Agency
West Kern Water District

Kings County Water District
La Habra Heights County Water District
La Puente Valley County Water District
Laguna Beach County Water District
Laytonville County Water District
Los Angeles Department of Water and Power
Malaga County Water District
Mammoth County Water District
Mariana Ranchos County Water District
Marina County Water District
Mariposa County Water Agency
Metropolitan Water District of Southern California
Midways Heights County Water District
Millview County Water District
Modesto Irrigation District
Montery County Water Resources Agency
Murrieta County Water District
Newhall County Water District
North Coast County Water District
North Marin Water District
Ojai Basin Groundwater Management Agency
Orange County Water District
Pajaro Valley Water Management Agency
Pinedale County Water District
Pinyon Pines County Water District
Placer County Water Agency
Redwood Valley County Water District
Sacramento County Water Agency
San Benito County Water District
West San Bernardino County Water District
San Diego County Water Authority
San Francisco Hetch Hetchy Water and Power Department
San Gabriel County Water District
Santa Margarita Water District
Santiago County Water District
Shasta County Water Agency
Sierra Lakes County Water District
Solano County Water Agency
Sonoma County Water Agency
Sonoma Mountain County Water District

Request for Information on behalf of the Santa Clara Valley Water District
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Phone: (415) 982-5544
Fax: (415) 982-4513

Stinson Beach County Water District
Summerland County Water District
Sunnyslope County Water District
Tehachapi-Cummings County Water District
Thunderbird County Water District
Turlock Irrigation District
Upper Lake County Water District
Valley County Water District
Valley of the Moon Water District
Ventura River County Water District
Walnut Valley Water District
Westlands Water District
Yuba County Water District
Yuba County Water Agency